AMENDMENTS TO THE DRAWINGS

Attached are fifteen (15) sheets of formal drawings to replace the informal drawings currently on record.

REMARKS

Claims 22-28 are currently pending in this application; with claim 22 being independent. Claims 22-24 have been amended to address informalities and improve their presentation. Applicants submit these amendments of claims 22-24 do not alter the scope of the claims. Applicants seek favorable consideration in light of this amendment and earnestly seek timely allowance of the pending claims.

Drawings

In the outstanding Office Action, the Office Action required formal drawings be provided in compliance with 37 CFR 1.121(d). Applicants submit herewith replacement sheets containing formal drawings in compliance with 37 CFR 1.121(d), and respectfully request the Examiner to withdraw the objection to the drawings.

Specification

The Office Action provided the general guidelines illustrating the preferred layout for a specification of a utility application. Applicants note that this format is not required; however, the specification of the application has been amended to better conform with the guidelines set forth in 37 CFR 1.77(b).

Claim Objections

The Office Action reported that claim 22 was objected to for not setting forth the steps of a method claim. Applicants have amended claim 22 without acquiescing to the Examiner's

objection and solely to advance the prosecution of this application. Applicants submit that amendments made to claim 22 in no way alter the scope of this claim.

Rejections Under 35 U.S.C. §102

The Office Action indicated that claims 22-24 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S.C. Pat. No. 5,414,428 to Gallagher et al. ("Gallagher") or "Mismatched Filtering of Sonar Signals," to Kesler et al. ("Kesler"). Applicants submit the Examiner has failed to establish a *prima facie* case of anticipation and respectfully traverse the rejection.

Gallagher merely discloses a radar system which transmits dispersed pulses, and receives echoes from targets. The echo signals are digitized and applied over a number of signal paths. In each signal path except one, the digitized signal is multiplied by one of a plurality of differential exponential signals. (See Abstract.) Specifically, Gallagher discloses producing received complex envelope signals, which are converted to digital form and applied to the inputs of multipliers 412. The complex exponential signals are selected in conjunction with the frequency of the Doppler filters 422a-m, so that each multiplier 412, when it multiples the digital complex envelope signal at its input port by the complex exponential signal from its associated complex exponential source 416, converts the complex envelop signal to a zero frequency reference, which may be considered to be base band. Each of the Doppler filters 420 of the Doppler filter bank 402 operates at the pulse-to-pulse rate of the radar system. (See col. 5, lines 40-76; Fig. 4.)

Kesler merely discloses an investigation of mismatched filtering as applied to pulsed continuous-wave sonar signals. Kesler further discloses a method of reducing the filter side

lobes without seriously affecting the capability of the system in white Gaussian noise. (See page 730, second column, paragraphs 4-5.) Specifically, Kesler describes using a Kaiser window to mitigate high side lobe levels associated with an unwindowed CW pulse. (See page 731, column 2, paragraph 3.)

However, neither Kesler nor Gallagher disclose, at least, "first and second auxiliary signals ... wherein each auxiliary signal comprises ... portions ... being interleaved with, and overlapping, signal portions of the other auxiliary signal," as recited in claim 22 (emphasis added).

The invention is distinguished from Gallagher and Kesler in that it has the advantage of resulting in an interleaved signal having a combined power which is substantially more uniform than that of each individual signal.

Accordingly, Applicants respectfully request the Examiner to withdraw the rejection of claim 22. Claims 23-24 depend from claim 22 and are allowable at least by virtue of their dependence from allowable claim 22.

Rejections Under 35 U.S.C. §103

The Office Action further indicated that claim 24 is rejected under 35 U.S.C. §103(a) as being unpatentable over Gallagher in view of Kesler. Applicants submit the Examiner has failed to establish a *prima facie* case of obviousness and respectfully traverse the rejection.

Claim 24 depends from claim 22 and includes all of the features recited in claim 22 by virtue of its dependency. Claim 22 is allowable over Gallagher and Kesler at least for the reasons provided above in the arguments for the allowability of claim 22.

Accordingly, claim 24 is allowable over Gallagher and Kesler, and Applicants respectfully request the Examiner to withdraw the §103 rejection of claim 24.

Conclusion

In view of the above amendments and remarks, this application appears to be in condition for allowance and the Examiner is, therefore, requested to reexamine the application and pass the claims to issue.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at telephone number (703) 205-8000, which is located in the Washington, DC area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: October 17, 2005

Respectfully submitted,

By _____

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Attachments: Replacement Sheets (15 Sheets of Formal Drawings)